

Remarks

In the outstanding Official Action, the Examiner:

(1) noted that the Abstract must be less than 150 words;

(2) objected to the specification as failing to provide proper antecedent basis for the claimed subject matter, pointing specifically to "said filter fiber pigtail is a multi-mode filter fiber pigtail" in claim 17;

(3) objected to claim 18 because of the informality "multi-node" in line 2 should be "multi-mode" and required correction;

(4) rejected claims 1-3, 6-9, 11 and 21-23 under 35 USC 102(e), as being anticipated by Welch '33004;

(5) rejected claims 4, 5, 24 and 25 under 35 USC 103(a), as being unpatentable over Welch '33004;

(6) rejected claim 10 under 35 USC 103(a), as being unpatentable over Welch '33004 in view of Fish et al.;

(7) rejected claims 12-15 under 35 USC 103(a), as being unpatentable over Welch '33004 in view of Kitamura;

(8) rejected claims 16 and 17-19 under 35 USC 103(a), as being unpatentable over Welch '33004 in view of Wu; and

(9) rejected claim 20 under 35 USC 103(a), as being unpatentable over Welch '33004 in view of Wu and further in view of Welch '95737.

With respect to Item 1 above, Applicants have submitted a substitute Abstract that commences on a separate sheet and does not exceed 150 words.

With respect to Item 2 above, Applicants have now amended the specification so as to provide a proper antecedent basis for claim 17.

With respect to Item 3 above, Applicants have now amended claim 18 so as to correct the typographical error pointed out by the Examiner.

With respect to Items 4-9 above, Applicants have now amended independent claims 1, 16 and 21 to further differentiate the present invention from the prior art.

More particularly, with respect to independent claims 1, 16 and 21, Applicants have now amended these claims so as to call for, among other things:

"a waveguide having a first end and a second end, and comprising a plurality of separate wavelength gain subsections arranged in a serial configuration between the first end and the second end so as to collectively form an active waveguide between the first end and the second end;

wherein each of the wavelength gain subsections is configured to produce ASE across a wavelength range which is less than, but contained within, the selected wavelength range, whereby the plurality of separate wavelength gain subsections collectively produce ASE across the selected wavelength range".

Welch '33004 does not disclose this claimed structure. More specifically, the Welch '33004 apparatus is believed to disclose three separate gain clamped semi-conductor optical amplifiers (GC-SOA) which are connected in parallel to the input of an arrayed waveguide (AWG). While the GC-SOAs are believed to have various electrode configurations (see,

for example, Figs. 9 and 10), these electrode configurations are believed to be provided for bias control. The GC-SOAs are not believed to provide Applicants' active waveguide, which comprises a plurality of separate wavelength gain subsections arranged in a serial configuration between the first end and the second end, wherein each of the wavelength gain subsections are configured to produce ASE across a wavelength range which is less than, but contained within, the selected wavelength range produced by the overall waveguide.

The references of Fish et al., Kitamura, Wu and Welch '95737 are not believed to remedy the aforementioned deficiency of Welch '33004.

Dependent claims 2-15, 17-20 and 22-28 are believed to be allowable for at least these same reasons.

In view of the foregoing, Applicants believe that claims 1-28 are in condition for allowance, and allowance thereof is respectfully requested.

Thank you.

Respectfully submitted,

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